

Serial No. 09/839,223

Docket No. Q64069

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-16. (canceled).

17. (currently amended): A hearing aid for insertion in the auditory canal, comprising a hearing aid housing with corresponding positioning means of the shell so that the circumference of the face plate matches the junction contour of the shell when the face plate positioning means engage with the shell positioning means, wherein said shell is matched to the auditory canal of a user, and a face plate, wherein said shell is manufactured according to a digital model of the users auditory canal so as to have a shell junction contour, shell positioning means, first component engagement means, and an acoustic output opening, said first component engagement means being adapted for receiving and holding a receiver.

wherein said face plate is manufactured according to said digital model so as to have a circumference matching said junction contour, face plate positioning means, and second component engagement means, and

wherein said face plate positioning means is adapted for engaging with said shell positioning means, so as to make said shell and said face plate provide a hearing aid housing.

18. (currently amended): AThe hearing aid according to claim 17, wherein the said face plate positioning means comprises at least one face plate protrusion at the inner surface of said face plate, wherein the said shell positioning means comprises indentations that are adapted to receive and match the at least one face plate protrusion, and further comprising the step of cutting the face plate along the junction contour so that it matches the junction contour when the at least one face plate protrusion are received by the mating indentations of the shell whereby correct assembly of the face plate and the shell is facilitated wherein said face plate is cut along said circumference so that it matches said junction contour when the at least one face plate protrusion is received by the mating indentations of said shell.

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19. (currently amended): AThe hearing aid according to claim 17, wherein the said face plate positioning means comprises at least one face plate protrusion at the inner surface of said face plate terminating at the circumference of said face plate at a distance from the circumference that is substantially equal to the thickness of said shell at the junction contour, and wherein the said shell positioning means comprises the said shell at the junction contour.

20. (currently amended): AThe hearing aid according to claim 19, wherein the said shell positioning means further comprise protrusions at the junction contour extending inwardly towards the interior of the said shell for reception and holding corresponding face plate protrusions.

21. (currently amended): A hearing aid for insertion in the auditory canal, comprising a hearing aid housing ~~with an integrated face plate having engaging means for receiving and holding a hearing aid component, and a shell that is matched to the auditory canal of a user manufactured according to a digital model of the users auditory canal so that a first part provides a surface adapted to match the shape of the auditory canal of the user, a second part provides a surface adapted to face the surroundings, a battery opening and a socket engagement means, and a third part provides an end wall and an acoustic output opening.~~

22. (currently amended): ~~A~~The hearing aid according to claim 17, comprising an electronic module ~~with a socket~~, at least one microphone, a signal processor, and a receiver, and wherein ~~thesaid~~ hearing aid housing is adapted to enclose ~~thesaid~~ electronic module, ~~the~~ and wherein ~~thesaid~~ face plate ~~has-a~~ defines a battery opening defined therein adapted for passage of a battery and ~~thesaid~~ electronic module, and the socket constitutes the hearing aid component.

23. (currently amended): ~~A~~The hearing aid according to claim 22, wherein ~~the~~ engaging means comprise grooves, tracks and/or notches for engagement with ~~co~~ operating socket engaging means formed on the socket ~~said~~ electronic module comprises socket engagement means, and wherein ~~said~~ second component engagement means comprises grooves, tracks and/or notches for engagement with ~~said~~ socket engagement means.

24. (currently amended): AThe hearing aid according to claim 23, wherein ~~the socket~~ engaging means comprise elastically resilient lugs said second component engagement means comprises elastically resilient lugs.

25. (currently amended): AThe hearing aid according to claim 24, wherein ~~the~~said lugs are integrated with battery terminals projecting from ~~the socket~~ said electronic module.

26. (currently amended): AThe hearing aid according to claim 17, wherein ~~the~~said shell has an integrated ventilation channel.

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27. (currently amended): AThe hearing aid according to claim 17, wherein ~~the~~shell has an said acoustic output opening ~~that~~ is adapted to receive and hold an ear wax guard.

28. (currently amended): AThe hearing aid according to claim 17, wherein ~~the~~said shell has a shell ventilation channel opening that is adapted to receive and hold an ear wax guard.

29. (currently amended): AThe hearing aid according to claim 27, wherein ~~the~~said hearing aid housing is produced with comprises a pipe stub in ~~the~~shell centered around ~~the~~said

output opening and, extending inwardly in thesaid shell and forming a bushing for insertion of the ear wax guard.

30. (currently amended): AThe hearing aid according to claim 27, wherein thesaid hearing aid housing is produced with a recess in thesaid shell covering an area around the said output opening and matching a collar of thean ear wax guard or, matching a collar of a bushing to be inserted in the opening for reception and holding of thean ear wax guard.

31. (currently amended): AThe hearing aid according to claim 17, wherein thesaid shell is produced withcomprises a tightening protrusion that extends along the surface of thesaid shell and adapted for providing a tight seal against the auditory canal wall when the said shell is inserted in the auditory canal.

32. (currently amended): AThe hearing aid according to claim 31, wherein thesaid tightening protrusion is made of the same material as thesaid shell, and wherein the outer dimensions of thesaid shell are increased to form the tightening protrusion.

33. (currently amended): AThe hearing aid according to claim 17, comprising a groove extending along the surface of thesaid shell and encircling said shell ~~having a cross section with a shape and dimensions that match a desired tightening ring to be mounted in the produced shell~~

and constituting a tightening protrusion, said groove being adapted to seat a tightening ring adapted to constitute a tightening protrusion.

34. (currently amended): AThe hearing aid according to claim 17, comprising a groove extending along the surface of thesaid shell for deposition of a material different from the material of thesaid shell in the groove, the deposited material constituting a tightening protrusion.

35. (currently amended): AThe hearing aid according to claim 31, wherein the position of the tightening protrusion is selected to corresponds to the position in the auditory canal at which the dynamic variations of the dimensions of the auditory canal exhibit the least variations caused by user activity.

36. (currently amended): AThe hearing aid according to claim 17, wherein the shell is produced with means for vibration absorbing suspension of the receiver said first component engagement means is adapted for vibration absorbing suspension of the receiver.

37. (currently amended): AThe hearing aid according to claim 36, wherein the means for absorbing suspension of the receiver comprises a chamber or shell protrusions for receiving

and holding the receiver, said first component engagement means comprises a chamber for receiving and holding the receiver, and at least one resilient band fixed around the receiver.

38. (currently amended): AThe hearing aid according to claim 37, wherein the at least one resilient band has at least one protrusions for supporting and suspending the receiver in the chamber said resilient band comprises a protrusion for supporting and suspending the receiver in the chamber.

39. (currently amended): A hearing aid according to claim 26, for insertion in the auditory canal, comprising a hearing aid housing with a face plate comprising positioning means for engaging with corresponding positioning means of the shell so that the circumference of said face plate matches the junction contour of said shell when said face plate positioning means engage with said shell positioning means, wherein said shell is produced with means for vibration absorbing suspension of the receiver, and wherein the means for vibration absorbing suspension of the receiver comprises receiver supporting protrusions co-operating for receiving and holding the receiver, and at least one resilient band fixed around the receiver.

40. (currently amended): AThe hearing aid according to claim 39, wherein the at least one resilient band comprises at least one supporting protrusion for abutment with the receiver supporting protrusions.

41. (currently amended): AThe hearing aid according to claim 17, wherein said hearing aid housing further comprises an ~~inherent~~ identification of the produced hearing aid housing.

42. (new) The hearing aid according to claim 36, wherein said first component engagement means comprises shell protrusions for receiving and holding the receiver, and at least one resilient band fixed around the receiver.

43. (new) The hearing aid according to claim 17, wherein said shell is manufactured utilizing a rapid prototyping technique.

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AMENDMENTS TO THE DRAWINGS

Submitted herewith are (6) replacement and (6) annotated drawings sheets, Figs. 11-15, 19-28 and 35-36

Attachment: Annotated Sheets
Replacement Sheets